Control Flow

Selenium IDE comes with commands that enable you to add conditional logic and looping to your tests.

This enables you to execute commands (or a set of commands) only when certain conditions in your application are met, or execute command(s) repeatedly based on pre-defined criteria.

Conditions in your application are checked by using JavaScript expressions.

You can use the `execute script` or `execute async script` commands to run a snippet of JavaScript at any point during your test and store the result in a variable. These variables can be used in a control flow command.

You can also use JavaScript expressions directly in the control flow commands.

Available Commands

Control Flow commands work by specifying opening and closing commands to denote a set (or block) of commands.

Here are each of the available control flow commands accompanied by their companion and/or closing commands.

- `if` , `else if` , `else` , `end`
- `times` , `end`
- `do` , `repeat if`
- `while` , `end`

Let's step through examples of each.

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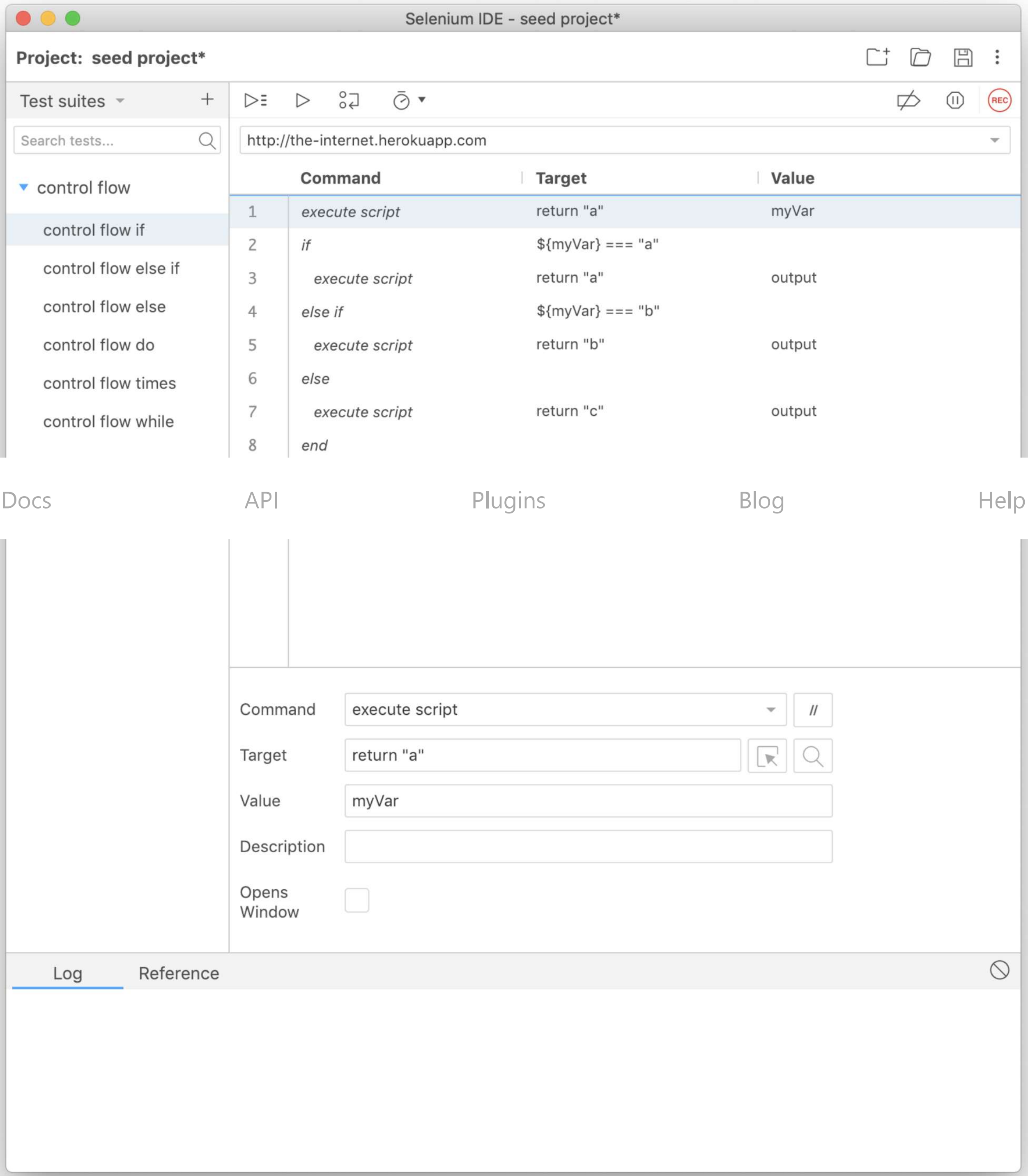
Conditional branching enables you to change the behavior in your test.


Selenium IDE - seed project*

Project: seed project*

Test suites

control flow
- control flow if
- control flow else if
- control flow else
- control flow do
- control flow times
- control flow while

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	Command	Target	Value
1	*execute script*	return "a"	myVar
2	*if*	${myVar} === "a"	
3	*execute script*	return "a"	output
4	*else if*	${myVar} === "b"	
5	*execute script*	return "b"	output
6	*else*		
7	*execute script*	return "c"	output
8	*end*		

Command	execute script
Target	return "a"
Value	myVar
Description	
Opens Window	☐

Log Reference

`if`

This is the opening command for a conditional block.

field of the `if` command.

If the expression evaluates to `true` then the test will execute the commands that follow it up until the next conditional control flow command (e.g., `else if`, `else`, or `end`).

If the expression evaluates to `false` it will skip the commands that follow and jump to the next relevant conditional control flow command (e.g., `else if`, `else`, or `end`).

`else if`

This command is used within an `if` command block.

Just like with `if` it takes a JavaScript expression in the `target` input field to evaluate, executing either the command branch that follows it, or skips to the next relevant control flow command (e.g., `else` or `end`).

`else` is the final condition you can have in an `if` block. When none of the prior conditions are met, this command branch will be executed.

After it's done it will jump to the `end` command.

`end`

This command terminates the conditional command block. Without it the command block is incomplete and you'll receive a helpful error message letting you know when trying to run your test.

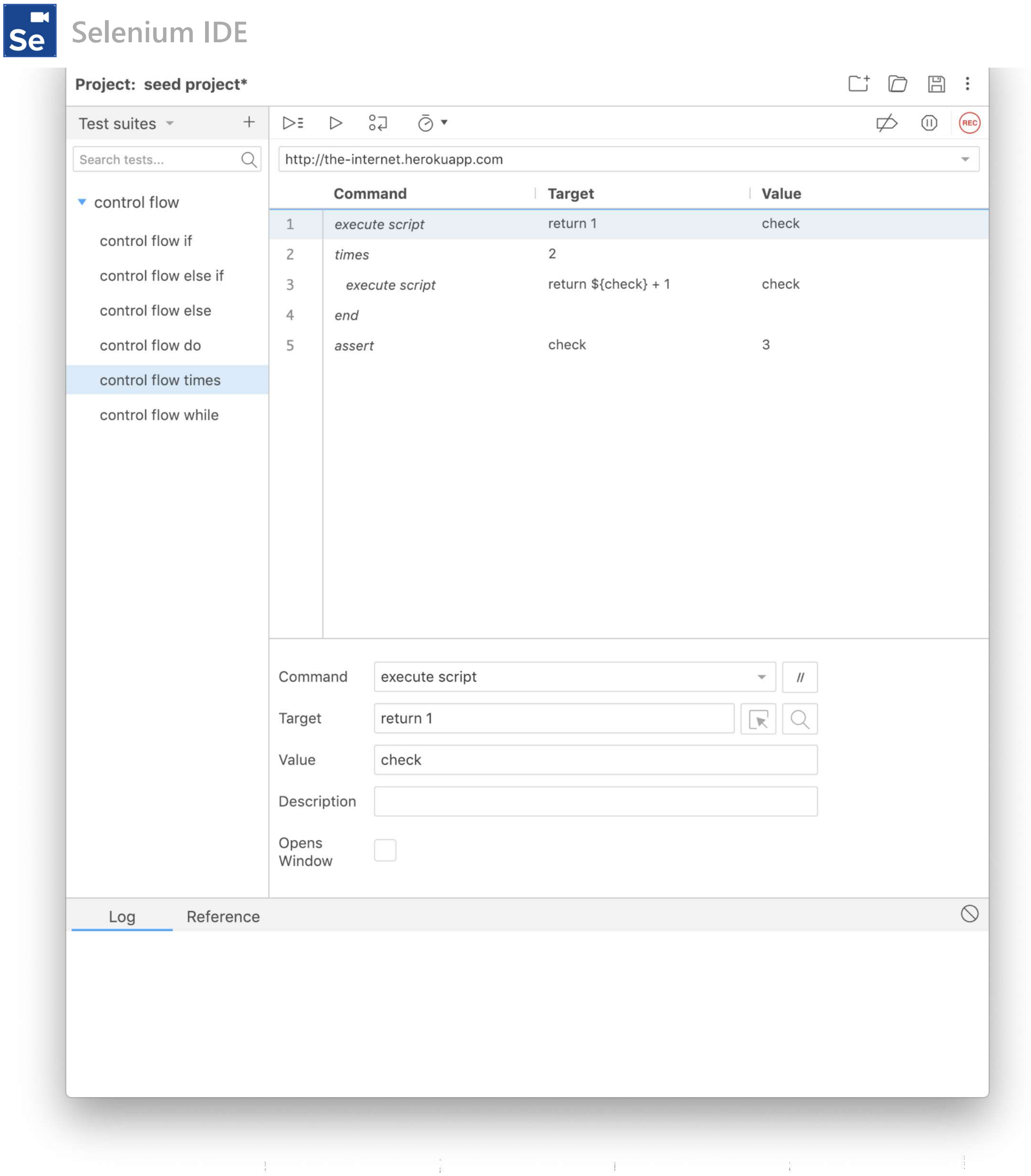
Looping

Looping enables you to iterate over a given set of commands.

`times`

With `times` you can specify a number of iterations you would like to perform a set of commands. The number goes into the `target` input field of the `times` command.

To close the `times` command block be sure to use the `end` command.



	Command	Target	Value
1	*execute script*	return 1	check
2	*times*	2	
3	*execute script*	return ${check} + 1	check
4	*end*		
5	*assert*	check	3

Command	execute script
Target	return 1
Value	check
Description	
Opens Window	☐

do

You start this loop with the `do` command, followed by the command(s) that you want executed, and end with the `repeat if` command. `repeat if` takes a JavaScript expression you would like to evaluate in the `target` input field.

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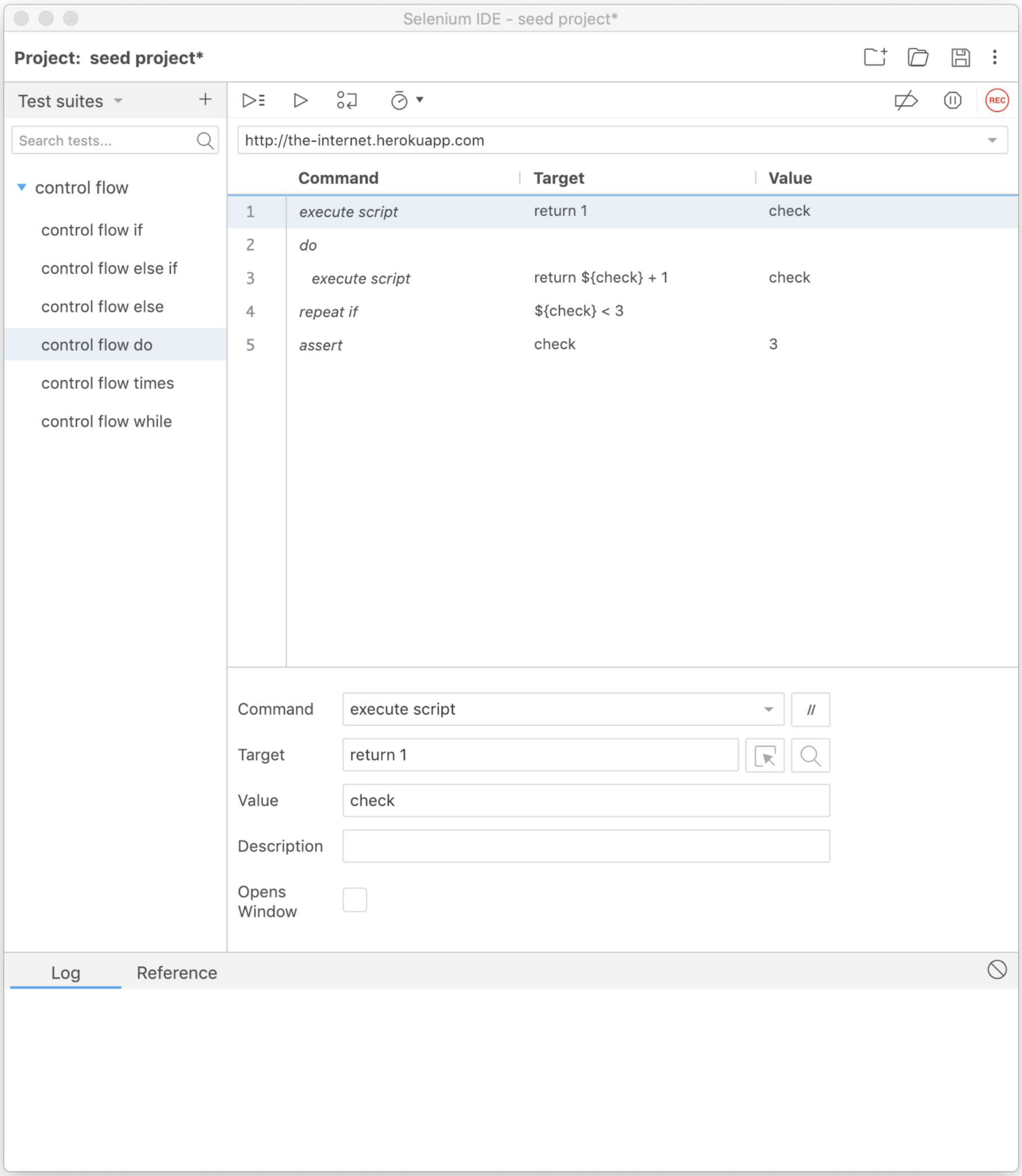
repeat the sequence.



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Project: seed project*

Test suites

control flow
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- control flow times
- control flow while

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	Command	Target	Value
1	execute script	return 1	check
2	do		
3	execute script	return ${check} + 1	check
4	repeat if	${check} < 3	
5	assert	check	3

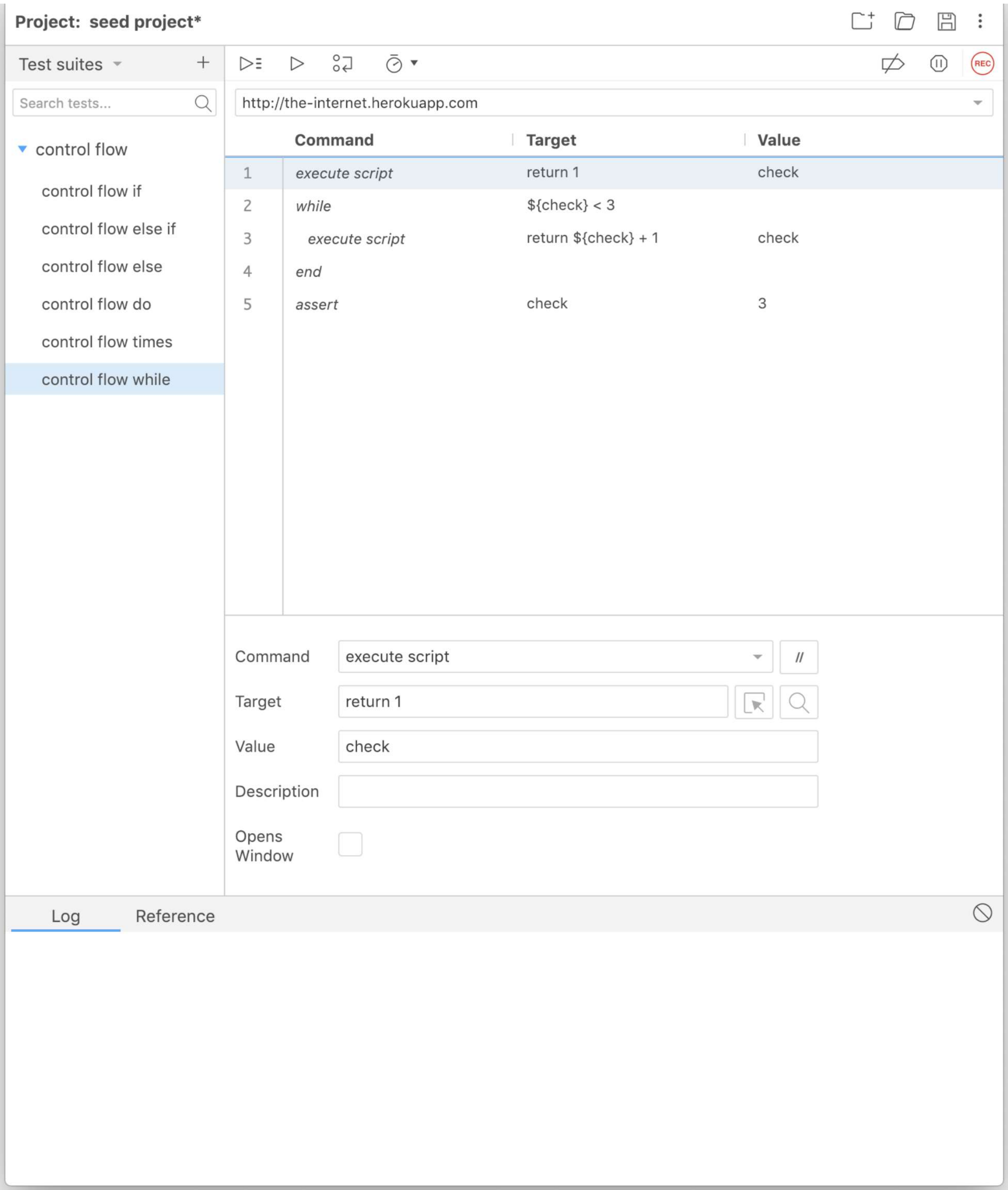
Command	execute script
Target	return 1
Value	check
Description	
Opens Window	☐

This will continue until either the condition returns `false` or the infinite loop protection is triggered -- which defaults to `1000` attempts. You can override this default by specifying a number in the `value` input field of the `repeat if` command.

With `while` you provide a JavaScript expression you would like to evaluate in the `target` input field. If it evaluates to `true` the command block that follows will execute until it reaches the `end` command.

Once done the test will jump back to the `while` command and repeat the same sequence over (checking first to see if the condition evalautes to `true` or `false`).

To close the `while` command block use the `end` command.



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	Command	Target	Value
1	*execute script*	return 1	check
2	*while*	${check} < 3	
3	*execute script*	return ${check} + 1	check
4	*end*		
5	*assert*	check	3

Command	execute script
Target	return 1
Value	check
Description	
Opens Window	☐

The loop will retry until either the condition returns `false` or the infinite loop protection is triggered -- which defaults to `1000` attempts. You can override this default by specifying a number in the `value` input field of the `while` command.

`forEach`

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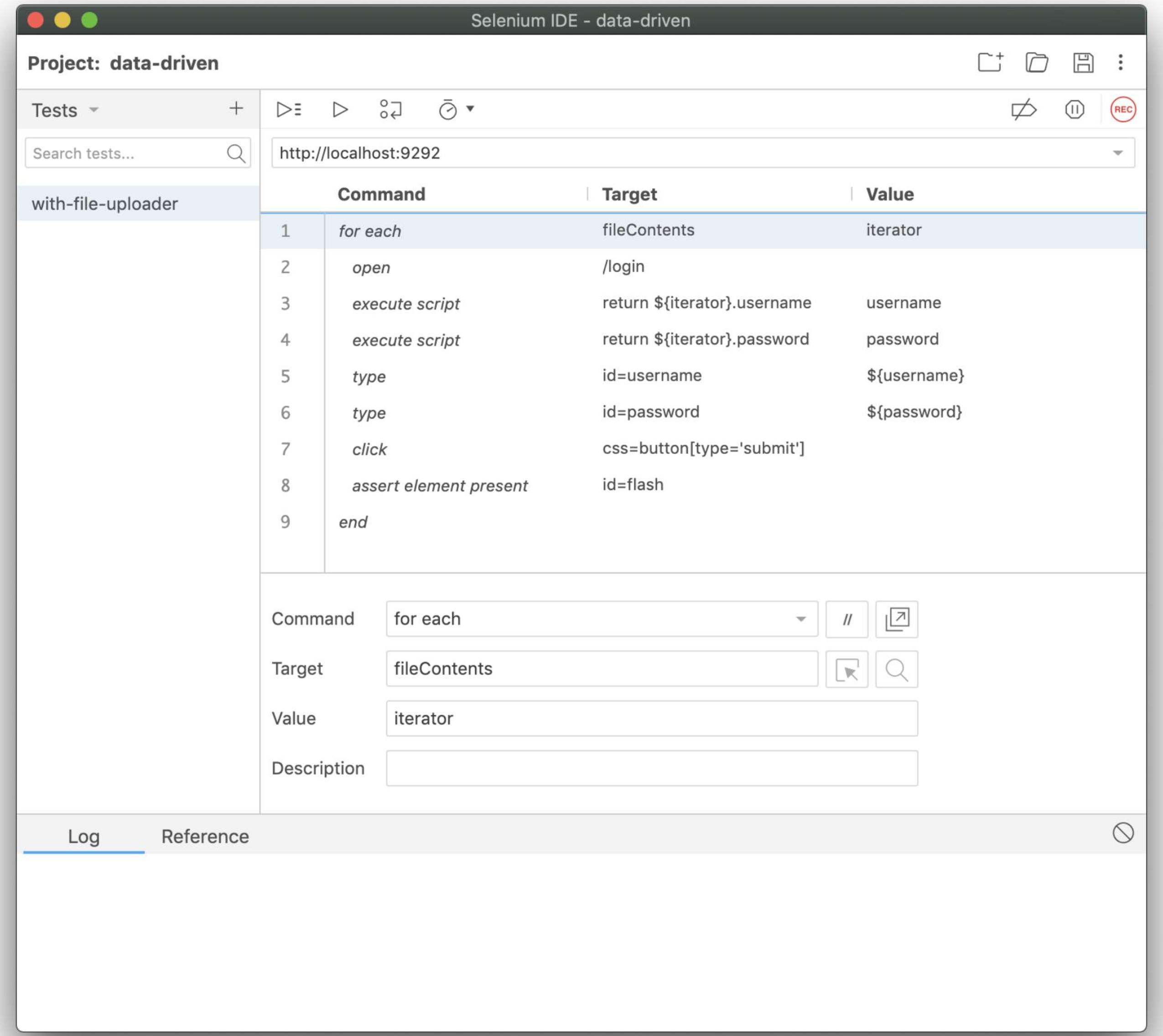
In the `target` field you specify the name of the variable that contains the array you want to iterate over. In the `value` field you specify the name for the iterator variable you'd like to use. For each entry in the array, the commands that follow will be executed. During each iteration the contents of the current entry will be accessible through the iterator variable.



	Command	Target	Value
1	for each	fileContents	iterator
2	open	/login	
3	execute script	return ${iterator}.username	username
4	execute script	return ${iterator}.password	password
5	type	id=username	${username}
6	type	id=password	${password}
7	click	css=button[type='submit']	
8	assert element present	id=flash	
9	end		

Command	for each
Target	fileContents
Value	iterator
Description	

Nesting Commands

You can nest control flow commands as necessary (e.g., an `if` block can go inside of a `while` block, and vice versa).

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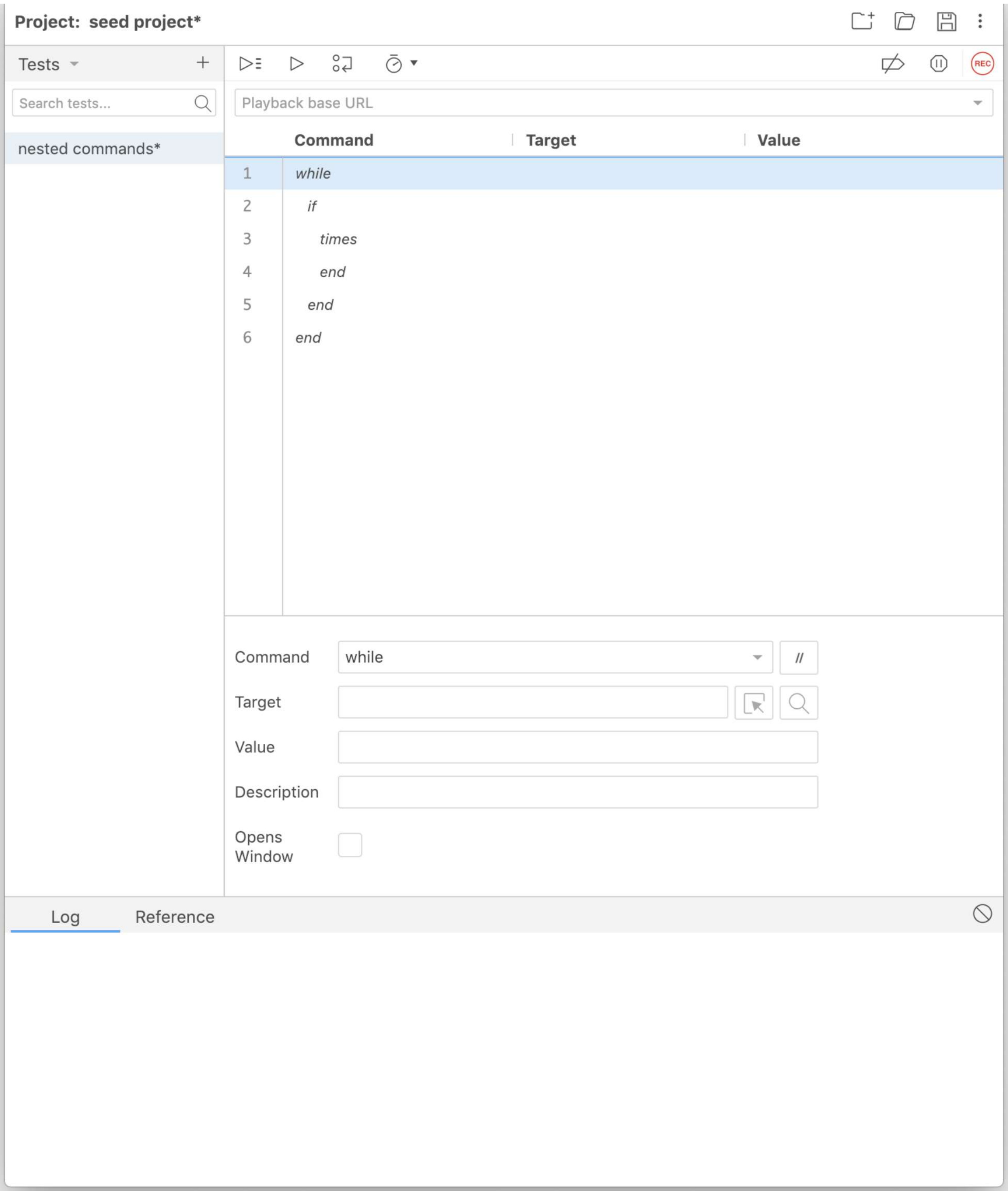
Project: seed project*

Tests

nested commands*

	Command	Target	Value
1	*while*		
2	*if*		
3	*times*		
4	*end*		
5	*end*		
6	*end*		

Command: while

Target:

Value:

Description:

Opens Window

Syntax Validation

If you're not sure if your control flow syntax is correct try running your test to see. The IDE will spot errors in the control flow syntax and call out the specific command that is incorrect or missing.

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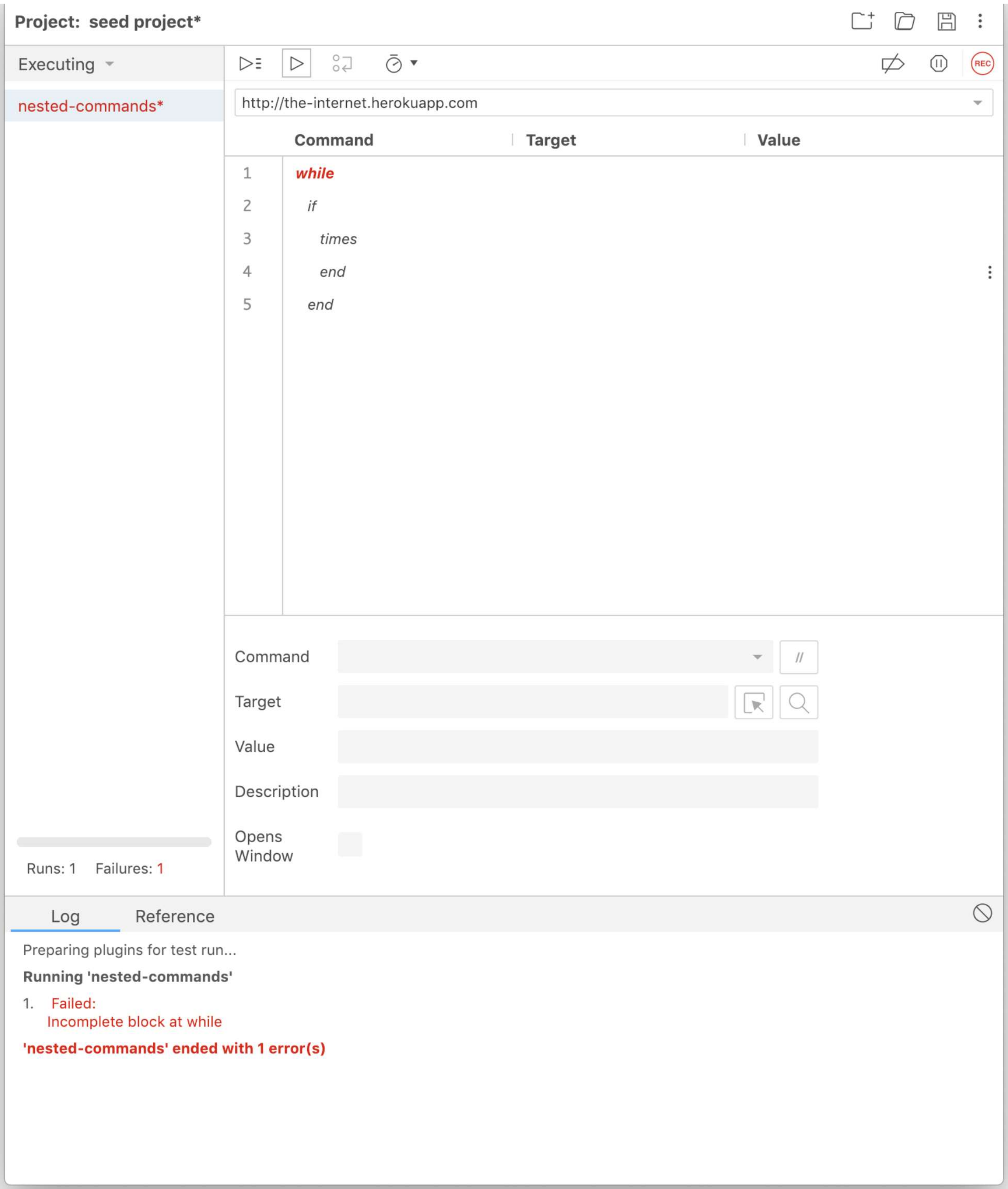

```
while
  if
    times
    end
  end
```

```
Preparing plugins for test run...
Running 'nested-commands'
1. Failed:
   Incomplete block at while
'nested-commands' ended with 1 error(s)
```

Last updated on 6/3/2019

← COMMAND-LINE RUNNER

CODE EXPORT →